pharmacological dose of niacin to the HIV-infected patient with depleted levels of tryptophan.

9. (Once Amended) A method for repleting nicotinamide nucleotide precursors, which comprises the step of administering a daily pharmacological dose of niacin to a patient needing repletion of nicotinamide nucleotide precursors.

REMARKS

Claim Status

Claims 1-24 are pending in the application. The examiner has rejected claims 1-24.

Claim Rejections - 37 CFR 1.75(c)

The examiner has objected to claims 10-24 under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative. MPEP 608.01(n) I (A) provides ten examples of acceptable wording for multiple dependent claims. The fourth and fifth examples of an acceptable multiple dependent claim state:

Claim 3. A gadget as in claim 2 or 3, further comprising ---

Claim 16. A gadget as in claims 1, 7, 12, or 15, further comprising---

MPEP 608.01(n) I (A).

Applicant's claims appear to conform to examples four and fi ve of MPEP 608.01(n) I (A). For instance, Applicant's claim 10 states: "The method of claim 1, 2, 3, 4, 5, 6, 7, 8, or 9 where---." As required by MPEP § 608.01(n), Applicant's multiple dependent claims refer to other claims in the alternative.

Accordingly, Applicant does not understand the Examiner's objection to claims 10-24. If the examiner has a specific objection to the form of Applicant's multiple dependent claims, Applicant respectfully requests that the Examiner specify his objection.

Claim Rejections - 35 U.S.C. § 112

The examiner rejects claims 1-9 under 35 U.S.C. § 112, first paragraph, as failing to teach how to make and/or use the invention, and thereby failing to provide an enabling disclosure. Specifically, the examiner states that Applicant fails to define "pharmacological dose" thereby failing to provide information that would allow the skilled artisan to ascertain these compounds without "undue experimentation." The examiner also rejects claims 1-9 under 35 U.S.C. § 112, second paragraph, because the phrase "pharmacological dose" fails to clearly set forth the metes and bounds of the patent protection desired. Applicant respectfully disagrees.

Pages 7 and 8 of the application describe what the term "pharmacological dose" means. The balance of the application sets fort the "metes and bounds." As stated on page 8, line 10 of the Applicant's application, "a pharmacological dose of niacin generally occurs at a dose of about 100 milligrams per day...." Reading the "description" section of the application as a whole, the 100 mg/day dose is the lower limit of pharmacologic activity. As shown in by the four examples set forth in the application, 3 g/day is also an effective pharmacologic dose. And, as stated on page 9, line 3, 500 mg/day is the preferred pharmacologic dose. Thus, applicant has defined the lower limit of the metes and bounds of the claimed invention as 100 mg/day.

Applicant has claimed a specific use for niacin in "pharmacological doses." As disclosed and enabled in the application a pharmacological dose of niacin is any dose greater than 100 mg/day. At a minimum, applicant has enabled a range of pharmacologic doses between 100 mg/day (the lower limit) and 3 g/day (the dose administered in the four examples). Accordingly, Applicant respectfully requests that the examiner reconsider his conclusion that the instant claims "necessitate an exhaustive search for the embodiments

suitable to practice the claimed invention" and that the instant claims fail to specify the "metes and bounds" of the patent protection desired.

Claim Rejections - 35 U.S.C. § 102

The examiner rejects claims 1-9 under 35 U.S.C. § 102 as being anticipated under the Merk Manual. In light of the Examiner's suggestion on the bottom of page 5 of the Office Action dated 7/27/01 the Applicant has amended Claims 1-9. Applicant requests re-examination of claims 1-9 in light of the amendments.

Claim Rejections - 35 U.S.C. § 103

The examiner rejects claims 1-9 under 35 U.S.C. § 103 as obvious in light of Tang et al, in view of Murray et al. The examiner claims that the teachings of Tang and Murray would have motivated the skilled artisan to employ high levels to treat HIV infections. In addition, the examiner states that "determining the active ingredient dosage level required to effect optimal therapeutic benefit is well within the Skilled Artisan's purview and the benefits of achieving such maximization obvious, to sail skilled artisan."

The examiner, however, has failed to set forth a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, "a reasonable likelihood of success must [] be found in the prior art." MPEP 2142, "*Establishing a Prima Facie Case of Obviousness.*" According to the MPEP, "at least some degree of predictability is required." MPEP 2143.02.

As the examiner noted on page 3 of the Office Action dated 7/27/2001, "[t]he pharmaceutical art is unpredictable, requiring each embodiment to be individually assessed for physiological activity." (emphasis supplied). In addition, the examiner states that the "instant specification fails to provide information that would allow the skilled artisan to practice the instant invention without undue experimentation." *See* Office Action dated 7/27/2001 pgs. 2 and 3.

Because the examiner's position is (1) that the pharmaceutical art is inherently unpredictable and (2) that the specification does not allow the skilled artisan to practice the invention without undue experimentation, Applicant respectfully responds that a *prima facie* case of obviousness has not been made because the prior art cited by the examiner does not provide the degree of predictability required by MPEP 2143.02.

Conclusion

Applicant has amended claims 1-9. In addition, Applicant believes it has addressed and responded to every point raised in the Examiner's action. Accordingly, Applicant respectfully requests reconsideration of its application.

Respectfully submitted,

Date: 11/26/2001

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on 11/26/2001

By: Judianne Schmidt

MARKED UP VERSION OF AMENDED CLAIMS

1. (Once Amended) A method for treating a patient infected with a retrovirus, which comprises the step of administering a daily pharmacological dose of niacin to the patient infected with a retrovirus.

2. (Once Amended) A method for treating retrovirus-induced metabolic changes, which comprises the step of administering a daily pharmacological dose of niacin to a patient with retrovirus-induced metabolic changes.

3. (Once Amended) A method for treating a patient infected with HIV, which comprises the step of administering a daily pharmacological dose of niacin to the patient infected with HIV.

4. (Once Amended) A method for treating HIV-induced metabolic changes, which comprises the step of administering a daily pharmacological dose of niacin to a patient with HIV-induced metabolic changes.

5. (Once Amended) A method for treating retrovirus-induced metabolic changes in a patient's systemic tryptophan levels, which comprises the step of administering a daily pharmacological dose of niacin to the patient with retrovirus-induced metababolic changes in the patient's tryptophan levels.

6. (Once Amended) A method for treating HIV-induced metabolic changes in a patient's systemic tryptophan levels, which comprises the step of

administering a daily pharmacological dose of niacin to the patient with HIV-induced metabolic changes in the patient's systemic tryptophan levels.

7. (Once Amended) A method for treating the depletion of tryptophan in a retrovirus-infected patient, which comprises the step of administering a daily pharmacological dose of niacin to the retrovirus-induced patient with depleted levels of tryptophan.

8. (Once Amended) A method for treating the depletion of tryptophan in an HIV-infected patient, which comprises the step of administering a daily pharmacological dose of niacin to the HIV-infected patient with depleted levels of tryptophan.

9. (Once Amended) A method for repleting nicotinamide nucleotide precursors, which comprises the step of administering a daily pharmacological dose of niacin to a patient needing repletion of nicotinamide nucleotide precursors.